IN THE CLAIMS

1-138. (Cancelled)

139. (Currently amended) A smart card comprising:

a memory for storing information;

at least one transmitting or receiving antenna, suitable for transmitting or receiving acoustic signals; and

a low frequency circuit, adapted to~~for~~ handle~~ing~~ transmission of information from the memory, or reception of information for storage in the memory, via ~~associated with~~ said antenna on an acoustic carrier~~and said memory~~, which information is modulated on the~~an~~ acoustic carrier at a frequency of between 5 kHz and 100 kHz.

140. (Previously presented) A smart card according to claim 139, wherein said at least one antenna comprises an individual transmission antenna.

141. (Previously presented) A smart card according to claim 139, wherein said at least one antenna comprises an individual reception antenna.

142. (Previously presented) A smart card according to claim 139, wherein said at least one antenna comprises a combined antenna for both reception and transmission.

143. (Previously presented) A smart card according to claim 139, wherein said at least one antenna comprises an array antenna.

144. (Previously presented) A smart card according to claim 154, wherein said at least one antenna comprises an acoustic antenna.

145. (Previously presented) A smart card according to claim 154, wherein said at least one antenna comprises an RF antenna.

146. (Previously presented) A smart card according to claim 139, comprising a processor for processing said information.

147. (Previously presented) A smart card according to claim 146, wherein said processor generates a response to an interrogation of said smart card.

148. (Previously presented) A smart card according to claim 146, wherein said memory comprises a long-term memory.

149. (Previously presented) A smart card according to claim 146, wherein said memory comprises a temporary memory for said processor.

150. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is less than 80 kHz.

151. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is less than 60 kHz.

152. (Previously presented) A smart card according to claim 293, wherein said carrier frequency is less than 50 kHz.

153. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is less than 40 kHz.

154. (Previously presented) A smart card comprising:

a memory for storing information;

at least one transmitting or receiving antenna; and

a low frequency circuit, for handling information associated with said antenna and said memory, which information is modulated on a carrier frequency of between 5 kHz and 30 kHz.

155. (Previously presented) A smart card according to claim 154, wherein said carrier frequency is less than 25 kHz.

156. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is less than 21 kHz.

157. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is over 10 kHz.

158. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is over 14 kHz.

159. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is over 16 kHz.

160. (Previously presented) A smart card according to claim 139, wherein said carrier frequency is over 17 kHz.

161. (Previously presented) A smart card according to claim 139, wherein said at least one antenna comprises a piezoelectric antenna.

162. (Previously presented) A smart card according to claim 139, comprising a high-frequency circuit for modulating information on a carrier frequency higher than 200 kHz.

163. (Previously presented) A smart card according to claim 139, comprising a high-frequency circuit for modulating information on a carrier frequency higher than 1 MHz.

164. (Previously presented) A smart card according to claim 162, wherein said high frequency circuit comprises an RF circuit.

165. (Previously presented) A smart card according to claim 139, comprising a high frequency circuit adapted to demodulate information from a carrier frequency higher than 200 kHz.

166. (Previously presented) A smart card according to claim 139, wherein said smart card implements a two-way communication protocol.

167. (Previously presented) A smart card according to claim 166, wherein said protocol comprises an error correction protocol.

100/02139 A04

168-187. (Cancelled)

188. (Previously presented) A smart card comprising:

a memory;

at least one acoustic signal reception element;

a speech input circuit, for entering speech signals received by the at least one reception element into said memory; and

an external acoustic communication link circuit for demodulating information from sound or speech signals received by the acoustic signal reception element.

189. (Cancelled)

190. (Previously presented) A smart card comprising:

a memory;

an external communication link for communicating information to or from said memory; and

a biometric data acquisition circuit, for acquiring biometric data, wherein said circuit shares an input transducer with said communication link.

191. (Previously presented) A smart card according to claim 190, wherein said communication link comprises an acoustic communication link.

192. (Previously presented) A smart card according to claim 190, wherein said biometric data acquisition circuit comprises a voice input circuit.

193. (Previously presented) A smart card according to claim 190, wherein said biometric data acquisition circuit comprises a motion determination circuit.

194. (Previously presented) A smart card according to claim 193, wherein said biometric data comprises motion of the smart card in the form of a gesture.

195. (Previously presented) A smart card according to claim 193, wherein said biometric data

comprises motion of the smart card in the form of handwriting.

196. (Previously presented) A smart acrd according to claim 190, comprising a processor for evaluating said biometric data against a sample of biometric data.

197. (Previously presented) A smart card according to claim 196, wherein said biometric data is stored in said memory.

198. (Previously presented) A smart acrd according to claim 190, wherein said acquired biometric data is stored in said memory.

199-202 (Cancelled)

203. (Previously presented) A smart card comprising:

an array of pressure detectors for determining spatial positions of pressurc changes on said array;

a memory; and

an external communication link for transmitting information from said card responsive to information in said memory and said detected pressure changes.

204. (Previously presented) A smart card according to claim 203, wherein said array of detectors comprises a surface acoustic wave (SAW) detector.

205. (Previously presented) A smart card according to claim 203, wherein said array of detectors comprises an array of individually electrified piezoelectric elements.

206-234. (Cancelled)

235. (Previously presented) A two part smart card, comprising:

a first separable part including at least a memory portion of the smart card; and

a second separable part, which is flexible, comprising at least a holding element for holding said first part and an electronic circuit associated with an operation of said first part.

100/02139 A04

236. (Previously presented) A smart card according to claim 235, wherein said electronic circuit comprises a power source.

237. (Previously presented) A smart card according to claim 236, wherein said power source comprises a receiver for transmitted power.

238. (Previously presented) A smart card according to claim 236, wherein said power source comprises a battery.

239. (Previously presented) A smart card according to claim 235, wherein said electronic circuit comprises an amplifier.

240. (Previously presented) A smart card according to claim 235, wherein said electronic circuit comprises an antenna.

241. (Previously presented) A smart card according to claim 235, wherein said first part is an independently operable smart card.

242. (Previously presented) A smart card according to claim 235, wherein said first part requires said electrical circuit to operate.

243. (Currently amended) A smart card comprising:

a flat card having a thickness about the thickness of a credit card;

a medium range communication link, on or in the flat card, having a range of over 0.5 meters and suitable for communication with a computer;

a speaker; and

circuitry for presenting non-speech information from said link over said speaker as speech.

244. (Previously presented) A smart card according to claim 243, comprising pager circuitry.

245. (Previously presented) A smart card according to claim 243, comprising telephone handset circuitry.

246. (Previously presented) A smart card according to claim 243, comprising acoustic help-file viewing circuitry.

247. (Previously presented) A smart card according to claim 243, wherein said link comprises an acoustic link.

248. (Previously presented) A smart card according to claim 247, wherein said speaker forms a part of said acoustic link.

249. (Previously presented) A smart card according to claim 247, wherein said acoustic link is operative to use office equipment as a base station from receiving said information.

250. (Previously presented) A smart card according to claim 249, wherein said office equipment comprises computers with sound systems designed for music.

251. (Previously presented) A smart card according to claim 249, wherein said office equipment comprises a telephone and wherein said smart card communicates using a speaker of said telephone.

252-261. (Cancelled)

262. (Currently amended) A smart card comprising:

a communication link with a computer;

an authentication circuit for authenticating a transaction; and

an acoustic display configured to~~that~~ sounds pertinent information regarding the transaction, retrieved via said link from said computer, prior to authentication of said transaction by the smart card.

263. (Previously presented) A smart card according to claim 262, wherein said display comprises a visual display.

264. (Cancelled)

265. (Previously presented) A smart card according to claim 262, wherein said pertinent information comprises an identification of a vendor with whom the transaction is being made.

266. (Previously presented) A smart card according to claim 262, wherein said pertinent information comprises an identification of goods being the subject of the transaction.

267. (Previously presented) A smart card according to claim 262, comprising a memory for storing a record of acceptance of said transaction by a user of said smart card.

268. (Currently amended) A pattern changing smart card, comprising:

a memory;

a communication link for transmitting or receiving information from said memory; ~~and~~

a controllable pattern display having at least two states, a first state indicating that the smart card is valid and a second state indicating the smart card is invalid; and

a controller adapted to control the state of the display, such that the controllable pattern display changes to the second state responsive to a determination that the card may have been lost or stolen.

269. (Previously presented) A smart card according to claim 268, wherein at least said second state does not draw current.

270. (Previously presented) A smart card according to claim 268, wherein said smart card locks in said second state.

271. (Previously presented) A smart card according to claim 268, wherein said pattern display changes to said second state over time unless otherwise activated.

272. (Previously presented) A smart card according to claim 268, comprising circuitry for switching states of said pattern display to said second state.

273. (Previously presented) A smart card according to claim 272, wherein said circuitry comprises a delay circuit for delaying said changing for a period of time.

274. (Previously presented) A smart card according to claim 272, comprising circuitry for receiving a command over said link to switch states.

275. (Previously presented) A smart card according to claim 274, wherein said command is verified using a digital signing or encryption.

276. (Previously presented) A smart card according to claim 268, wherein said invalid-indicating pattern in said second state is perceptible by a human viewer.

277. (Previously presented) A smart card according to claim 139, wherein said antenna radiates or receives far-field radiation.

278. (Previously presented) A smart card according to claim 139, wherein said card transmits information without a carrier wave.

279. (Cancelled)

280. (Previously presented) A smart card according to claim 154, wherein said at least one antenna comprises at least one transmission antenna and at least one separate reception antenna.

281. (Previously presented) A smart card according to claim 154, wherein said at least one antenna comprises a piezoelectric antenna.

282. (Previously presented) A smart card according to claim 154, comprising a high-frequency circuit for modulating information on a carrier frequency higher than 200 kHz.

283. (Previously presented) A smart card, comprising:

a memory for storing information;

at least one transmitting or receiving piezoelectric antenna; and

a low frequency circuit, for handling information associated with said antenna and said memory, which information is modulated on a carrier frequency of between 5 kHz and 100 kHz.

284. (Previously presented) A smart card according to claim 283, wherein said at least one

antenna comprises at least one transmission antenna and at least one separate reception antenna.

285. (Previously presented) A smart card according to claim 283, wherein the low frequency circuit is adapted for transmission of acoustic signals through the piezoelectric antenna.

286. (Previously presented) A smart card according to claim 283, comprising a processor for processing said information and wherein the memory comprises a temporary memory for said processor.

287. (Previously presented) A smart card according to claim 283, comprising a high-frequency circuit for modulating information on a carrier frequency higher than 200 kHz.

288. (Currently amended) A smart card, comprising:

a memory for storing information;

at least one transmitting or receiving antenna;

a low frequency circuit, for handling information associated with said antenna and said memory, which information is modulated on a carrier frequency of between 5 kHz and 100 kHz; and

a high frequency circuit, for handling information associated with said antenna and said memory, ~~a high frequency circuit for modulating~~which information is modulated on a carrier frequency higher than 1 MHz~~100kHz~~.

289. (Previously presented) A smart card according to claim 288, wherein said at least one antenna comprises at least one transmission antenna and at least one separate reception antenna.

290. (Previously presented) A smart card according to claim 288, wherein said at least one antenna comprises an acoustic antenna.

291. (Previously presented) A smart card according to claim 288, comprising a processor for processing said information and wherein the memory comprises a temporary memory for said processor.

292. (Cancelled)

100/02139 A04

293. (Previously presented) A smart card, comprising:

a memory for storing information;

at least one receiving antenna; and

a low frequency circuit, for handling information transmitted to the at least one receiving antenna, which information is modulated on a carrier frequency of between 5 kHz and 100 kHz.

294. (Previously presented) A smart card according to claim 293, whercin said carrier frequency is less than 25 kHz.

295. (Previously presented) A smart card according to claim 293, whercin said carrier frequency is about one of 22kHz, 24kHz, 32 kHz, 44 kHz or 48kHz.

296. (Previously presented) A smart card according to claim 235, wherein the second part is in the form of a badge holder.

297. (Previously presented) A smart card according to claim 235, wherein when the first separable part is held by the second separable part, the second part allows a clear field of view to the first part.

298. (Previously presented) A smart card according to claim 238, wherein the first separable part also includes a battery.

299. (Previously presented) A smart card according to claim 241, wherein the second part enhances the transmission range of the first part.